

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Shibly S. AHMED et al.

Application No.: 10/720,166

Filed: November 25, 2003

For: DOUBLE GATE SEMICONDUCTOR
DEVICE HAVING A METAL GATE



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) Group Art Unit: Unassigned

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) Examiner: Unassigned
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INFORMATION DISCLOSURE STATEMENT
TRANSMITTAL LETTER

U.S. Patent and Trademark Office
2011 South Clark Place
Customer Window, Mail Stop
Crystal Plaza Two, Lobby, Room 1B03
Arlington, Virginia 22202

Sir:

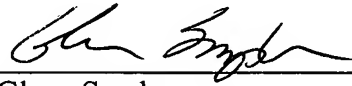
Enclosed is an Information Disclosure Statement and accompanying form PTO-1449 for
the above-identified patent application.

- ☒ No additional fee for submission of the IDS is required.
- ☐ The fee of \$180.00 as set forth in 37 C.F.R. § 1.17(p) is also enclosed.
- ☐ A certification under 37 C.F.R. § 1.97(e) is also enclosed.
- ☐ Charge \$ ____ to Deposit Account No. 50-1070 for the fee due.
- ☐ A check in the amount of \$ _____ is enclosed for the fee due.

The Commissioner is hereby authorized to charge any other appropriate fees that may be required by this paper that are not accounted for above, and to credit any overpayment, to Deposit Account No. 50-1070.

Respectfully submitted,

HARRITY & SNYDER, L.L.P.

By: 
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CUSTOMER NUMBER: 26615

Date: January 8, 2004

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Application No.: 10/720,166

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Title: DOUBLE GATE SEMICONDUCTOR
DEVICE HAVING A METAL GATE



Group Art Unit: Unassigned

Examiner: Unassigned

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)

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Arlington, Virginia 22202

Sir:

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), Applicant(s) bring to the attention of the Examiner the documents listed on the attached PTO 1449. This Information Disclosure Statement is being filed before the mailing date of a first Office Action in the above-referenced application. As such, no certification or fee is required. Copies of the listed documents that are not U.S. Patents are attached.

Applicant(s) respectfully request(s) that the Examiner consider the listed documents and indicate that they were considered by making appropriate notations on the attached form.

If any copending application(s) is/are cited on the attached PTO 1449, the Examiner's attention is directed to the foregoing application(s) in compliance with § 2001.06(b) of the Manual of Patent Examining Procedure. By identifying the copending application(s), the assignee and/or applicant of the application(s) do not waive confidentiality of the application(s). Accordingly, the U.S. Patent and Trademark Office is requested to maintain the confidentiality of the copending application(s) under 35 U.S.C. § 122.

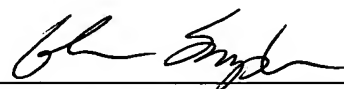
This submission does not represent that a search has been made and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and Applicant(s) determine(s) that the cited document(s) do not constitute "prior art" under United States law, Applicant(s) reserve(s) the right to present to the Office the relevant facts and law regarding the appropriate status of such documents.

Applicant(s) further reserve(s) the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 50-1070.

Respectfully submitted,

HARRITY & SNYDER, L.L.P.

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INFORMATION DISCLOSURE CITATION PTO-1449		CUSTOMER NUMBER 26615		ATTORNEY'S DKT No. H1102C		APPLICATION No. 10/720,166	
				APPLICANT(S) Shibly S. AHMED et al.			
				FILING DATE November 25, 2003		GROUP Unassigned	

U.S. PATENT DOCUMENTS						
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
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						Yes	No
	WO 03/015182 A2	02/20/2003	WO			Abstract Only	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)	
	United States Patent Application Publication No. US 2003/0111686 A1; Publication Date: June 19, 2003; Nowak.
	United States Patent Application Publication No. US 2003/0141525 A1; Publication Date: July 31, 2003; Nowak
	United States Patent Application Publication No. US 2003/0113970 A1; Publication Date: June 19, 2003; Fried et al.
	United States Patent Application Publication No. US 2003/0151077 A1; Publication Date: August 14, 2003; Mathew et al.

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

INFORMATION DISCLOSURE CITATION PTO-1449	CUSTOMER NUMBER 26615	ATTORNEY'S DKT No. H1102C	APPLICATION No. 10/720,166	
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FOREIGN PATENT DOCUMENTS							
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)	
	Copy of co-pending Application Serial No. 10/645,577; entitled "Sacrificial Oxide Protection During Dummy Gate Removal in Damascene Gate Process in Semiconductor Devices; filed on August 22, 2003; 28 pages.
	Copy of co-pending Application Serial No. 10/320,536; entitled "FinFET Gate Formation Using Reverse Trim of Dummy Gate"; filed on December 17, 2002; 25 pages.
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	Digh Hisamoto et al., "FinFET-A Self-Aligned Double-Gate MOSFET Scalable to 20 nm," IEEE Transactions on Electron Devices, Vol. 47, No. 12, December 2000, pages 2320-2325.
	Yang-Kyu Choi et al., "Sub-20nm CMOS FinFET Technologies," 2001 IEEE, IEDM, pages 421-424.
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	Xuejue Huang et al., "Sub 50-nm FinFET: PMOS," 1999 IEEE, IEDM, pages 67-70.
	Yang-Kyu Choi et al., "Nanoscale CMOS Spacer FinFET for the Terabit Era," IEEE Electron Device Letters, Vol. 23, No. 1, January 2002, pages 25-27.

EXAMINER	DATE CONSIDERED
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